

This document contains the health risk screening assessment for:

East Bay Generator  
3740 San Leandro Street  
Oakland, California

East Bay Generator is proposing to operate a paint spray booth. In order to do this, the facility must get a permit from the Bay Area Air Quality Management District (BAAQMD). 2-Butoxyethanol, a non-carcinogenic toxic air contaminant, will be emitted during the painting operation. BAAQMD staff, as a part of the permit review process, evaluates the possible health impact of the 2-Butoxyethanol emissions.

The chronic health impact of the 2-Butoxyethanol emissions is expressed in terms of a Hazard Index. A Hazard Index of less than or equal to one is considered acceptable under the BAAQMD Risk Management Policy. The Hazard Index calculated for residences near the facility and for the students who attend Dewey/Baymart Senior High School is presented in Table 1. These numbers indicate that the 2-Butoxyethanol emissions from the operation of the paint spray booth are below levels at which adverse health effects are expected to occur.

Table 1 Hazard Index	
Residential	Dewey/Baymart Senior High School
0.04	0.05

The screening methods used by BAAQMD to estimate the Hazard Index are based on a "worst-possible" estimate of the operating conditions for the facility. This type of analysis is considered to be health-protective. The emission rate used to calculate the Hazard Index is shown in Table 2.

Table 2 2-Butoxyethanol Emissions	
tons/year	grams/second
0.28	0.008

Ambient air concentrations of 2-Butoxyethanol were predicted using the ISCST3 air dispersion computer model. This model uses information about the facility and the emission rates of toxic air contaminants to estimate what concentrations would be expected in the air around the site. The estimated increase in maximum concentrations of 2-Butoxyethanol at residences near the property line and at Dewey/Baymart Senior High School are shown in Table 3.

Table 3 Annual Average 2-Butoxyethanol Concentrations in Ambient Air ( $\mu\text{g}/\text{m}^3$ )	
Residential	Dewey/Baymart Senior High School
0.81	0.96

These estimated concentrations of 2-Butoxyethanol are used in calculating the Hazard Index.

School address: Dewey/Baymart Senior High School  
3709 E. 12<sup>th</sup> Street  
Oakland, California